

Government of Bengal

Annual Statistical Returns and Short Notes on Vaccination in Bengal

For the Year 1926-27

Dr. C. A. BENTLEY, M.B., D.P. .., D.T.M.&H., K.H.G., F.S.S.

Director of Public Health, Bengal

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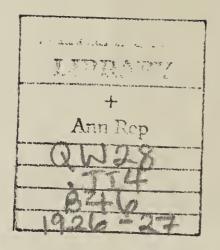
For the Year 1926-27

by

Dr. C. A. BENTLEY, M.B., D.P.H., D.T.M.&H., K.H.G., F.S.S. Director of Public Health, Bengal

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BENGAL PUBLIC HEALTH DEPARTMENT.

No. 18103-V.

From Dr. C. A. Bentley, M.B., D.P.H., D.T.M. & H.,

Director of Public Health, Bengal.

To the SECRETARY to the GOVERNMENT of BENGAL,

LOCAL SELF-GOVERNMENT DEPARTMENT.

Calcutta, the 19th October 1927.

SIR,

I have the honour to submit, for the information of the Government of Bengal, the Provincial Statistical Vaccination Returns for the year 1926-27, with short notes by Dr. Sufi, Assistant Director of Public Health in charge of Vaccination in the Bengal Public Health Department.

I have the honour to be,

SIR,

Your most obedient servant,

C. A. BENTLEY,

Director of Public Health, Bengal.

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Short Notes on Vaccination in Bengal for the year 1926-27.

As the Officer in charge of Vaccination in the Provincial Public Health Department, I have the honour to submit the following brief report on vaccination in Bengal during the year 1926-27. In furtherance of the policy of expansion of local self-government, the entire provincial vaccination establishment of Inspectors and Sub-Inspectors was transferred to the District Boards (except Darjeeling) with the close of the year for future direct administration and control, the Local Government having agreed to meet the whole estimated cost at Rs. 95 a month for an Inspector and at Rs. 65 a month for a Sub-Inspector. Due to the employment of all available qualified Sanitary Inspectors for the ruarl Public Health organisation, recruitment for the Vaccination Branch is practically suspended, nor is it desired to keep such a separate branch service permanently alive, in view of the provision of thana health circles throughout the province, except the Darjeeling district and the Chittagong Hill Tracts. When the scheme for a rural public health organisation is in full operation, it will be unnecessary to provide separately for the inspection of vaccination alone, as the duties of the rural Assistant Health Officers and Sanitary Inspectors include such vaccination work. But District Board will still be required to maintain their complement of public vaccinators in addition to the rural Circle Health Assistants. The cost of of such establishments will be met from the present annual district provisions for public health including vaccination, which will be increasingly relieved by the general public health organisation, the whole cost of which, estimated at twelve lakhs of rupees per annum. will be borne by provincial revenues.

2. Strength of Staff.—Because of the provision of vaccinators, whether salaried or licensed, from the very origin of the Provincial Sanitary Departments, it has been customary to report the strength of the vaccination staff employed annually, with its successive variations. But with the general amalgamation of vaccination with

public health and the provision of general health staffs, both in rural and in municipal areas, it will no longer useful to record the numbers of vaccinators and inspectors employed in Bengal, without giving an erroneous impres-During the year 1926-27, number of Vaccination Inspectors ployed in rural areas increased to 143, against 137 during the previous year, the District Boards of the 24-Parganas, Jalpaiguri and Dinajpur appointed additional Inspectors. aggregate number of vaccinators ployed by District Boards was 1,596 in 1926-27, against 1,555 in 1925-26. Mufassal Municipalities (Dacca Suburban) employed Inspectors, against 4 in the preceding year. The Corporation of Calcutta retained the same number of Inspectors (16) as in the preceding year, while only a female vaccinator was added to the number of vaccinators (58) entertained. Two special Inspectors—one for Western and the other for Eastern Bengal retained by the Provincial Department for assistance in executive and research work.

General Vaccination Statistics.— During the year 1926-27, a provincial aggregate of 3,278,581 vaccinations were performed on 3,276,975 persons, against 3,030,178 vaccinations 3,028,136 persons during the preceding year, yielding an increase of 248,403 vaccinations, or 8.2 per cent. The total number was divided between primary and re-vaccinations in the proportion of 1,741,801 (53·1 per cent.) and 1,536,780 (46.9 per cent.) during 1926-27, against 1,751,091 and 1,279,087 respectively during 1925-26. Comparing the two decreased years, primary vaccinations by 9,290 (.53 per cent.), while re-vaccinations increased by 257,693 (20.1 per vaccinator averaged cent.). Each 1926-27, 1,761 vaccinations during against 1,713 during 1925-26. Vaccination was reported to have been successful in 95.1 per cent. of the primary and 52.09 per cent. of the re-vaccination cases in which the results were known.

Vaccination in Rural Areas.— Compared with the preceding year's work, some districts performed more and some a lesser number of vaccina-. tions during the year, the increases being shared mostly by Pabna (97,724), Murshidabad (45,777), Birbhum (26,623), Faridpur (26,400), Rangpur (25,077), Midnapur (19,804), Malda (18,168), Rajshahi (17,434), Bogra (11,618) and Dinajpur (10,915), while the decreases occurred chiefly in Burdwan (37,460), (20,029),Chittagong 24-Parganas (17,080), Howrah (14,428) and Darjeeling (9,751). Both primary and revaccinations increased in Pabna, Birbhum, Faridpur, Rangpur, Bogra and Bakarganj, while they decreased in Burdwan, 24-Parganas, Darjeeling, Chittagong, Howrah, Bankura and the Chittagong Hill Tracts. In Mymensingh, Tippera and Nadia, primary vaccinations increased but re-vaccinations decreased, while in the other ten districts the position was the re-The increases in both classes of vaccinations, particularly re-vaccinations were the direct results of the smallpox epidemics in several districts. Burdwan District Health explanation of the marked decrease in his jurisdiction as attributable to the large number of vaccinations having been already carried out during the preceding two epidemic years is untenable, because of the severer epidemic of smallpox during the year 1926-27. Vaccination might, however, have suffered by the reported diversion of vaccinators to do anti-cholera work. The Civil Surgeon of Darjeeling attributes the decrease in his district to the thorough vaccination in previous years of the coolies employed on the tea-gardens and also to the absence of the necessary stimulus of a small-pox epidemic in the tea-gardens during the year 1926-27. The presence of cholera and the low small-pox mortality are reported to account for the decrease in Chittagong and the 24-Parganas, while Howrah puts it down to the milder prevalence of small-pox. The setback in the 24-Parganas and Howrah cannot be considered to be satisfactory, all the more because of their contiguity to Calcutta, which suffered most severely from January to May 1927, as it is notorious that the two adjacent districts are the first to be affected with any epidemic which springs up in Calcutta.

The poor increase in the aggregate number of vaccinations is practically

negligible, in view of the continued prevalence of small-pox since December 1924 throughout the province, particularly in the northern, southern and western portions.

Vaccination in Municipalities.— The total number of vaccinations performed in Calcutta during 1926-27 was 216,700, of which 29,162 were primary and 187,538 re-vaccinations, against a total of 149,322 vaccinations (including 25,607 primary and 123,715 re-vaccinations) during the preceding year. In mufassal Municipalities, 160,948 vaccinations (including 67,938 primary and 93,010 re-vaccinations) were performed during the year, against 167,238 (66,276) primary and 100,962 re-vaccinations) during the preceding year, showing a decrease of 6,290 vaccinations in the aggregate and of 7,952 in re-vaccinations. The decline in re-vaccinations is deplorable, in view of the severity of small-pox during the year under review.

6. Vaccinations performed by Other Agencies.—The following comparative statement shows the number of vaccinations performed by other agencies:—

Agencies.	Prim	ary.	Re-vacci	nations.	Tota	ıl.
	1926- 27.	1925- 26.	1926- 27.	1925- 26.	1926- 27.	1925- 26.
Tea- gardens	5,203	9,194	2,349	15,368	7,552	24,562
Factories	8,605	8,769	28,742	17,154	37,347	25,923
Railways	1,424	1,761	8,139	10,133	9,563	11,894
Steamers			9,534	5,935	9,534	5,935
Dispen- saries	15		16		31	• •
Jails	275	32	32,565	30,812	32,840	30,844
Total	15,522	19,756	81,345	79,402	96,867	99,158

Out of 7,552 vaccinations performed in tea-gardens, Darjeeling reported 5,972 and Jalpaiguri 1,580, against 17,052 and 7,510 in the previous year. Civil Surgeon of Darjeeling states that the decrease was due to the whole local labour force having been thoroughly vaccinated and re-vaccinated during the previous year, owing to the prevalence of small-pox in some of the tea-gardens from April to June, 1925. The case of the Jalpaiguri tea-gardens is, however, different. In spite of the criticisms made in these reports year after year and in spite of the attempts made by Public Health Department, Jalpaiguri with its numerous tea-gardens reported only 1,580 operations during the year. Railway vaccinations also decreased by 19.6 per cent., but factories, steamers, dispensaries and jails reported increases.

- Potection afforded to Infants.— Although the number of available infants successfully vaccinated decreased by 41,775 (or 13:3 per cent.) as compared with the previous year, the rate of success was higher, being 273.4 per mile in the year 1926-27, against 269.5 in the preceding year. In the areas, this rate was 249.7 against 253.3; in the mufassal Municipalities, against 482.4; and in Calcutta, 1,664.7 against 960.7. An analysis of figures of the various districts shows that only in three districts—Malda, Rajshahi and Darjeeling—the proporvaccinated tion of such successfully infants was over 500 per mille, against four—Malda, Rajshahi, Darjeeling and and Jalpaiguri—during the previous year. In seven districts the proportion was between 300 and 400 per mille, in eight between 200 and 300 per mille, in seven others between 100 and 200 per mille, while in the remaining two districts—Bogra and Bakarganj—it 77.3 and 33.4 per mille respectively.
- 8. Recess Vaccination.—Although the Bengal Vaccination Act, 1880, as amended up to date, does not recognise or prescribe any vaccination or recess season, as in the India Vaccination Act, 1883, the differentiation is recognised in actual practice based on the statutory rules and executive orders. The total number of operations performed during season of 1926-27 was the recess 393,875 (primary 113,119 and re-vaccinations 280,756), against 365,374 (pri-118,606 and re-vaccinations 246,698) operations during the preceding year, showing an increase of 28,571, for which the prevalence small-pox was surely responsible.
- 9. Six-puncture Vaccination.— During 1926-27, only 73,514 six-puncture vaccinations were performed, against 115,902 during the preceding year. This gradual decrease noticed year after year is due to its unpopularity with the parents of the children and to the failure of the vaccinators to impress upon the former its utility in securing an area of the foveated scar just necessary to confer immunity against small-pox.
- 10. Cost and Contribution towards Vaccination.—The total cost of vaccination during the year 1926-27 was Rs. 4,52,819-14-9, of which Rs. 164 841-6

- was contributed from provincial revenues, Rs. 1,69,685-2-9 from district funds and Rs. 118,293-6 from municipal funds, against Rs. 4,52,901-13-4, Rs. 2,16,868-1-4, Rs. 1,64,908-14-9 and Rs. 71,124-13-3, respectively, in 1925-26.chief increase in expenditure by the Municipalities is noticeable in Calcutta —Rs. 88,361 against Rs. 47,674 during the previous year. The Local Government repeated the annual contribution of Rs. 50,000 to assist the provision of free vaccination against small-pox. The average cost of each successful case was 2 annas 11 pies during the year against 3 annas 2 pies during the previous year.
- 11. Diagram illustrating Death Rates from Small-pox and the Degree of Protection afforded since the year 1917-18.—The death rates from small-pox in each district and the proportion of population protected against the disease by vaccination during the past ten years are shown side by side in the diagram printed overleaf.
- Deaths from Small-pox.—Deaths small-pox numbered 31,936, against 18,618 in 1925-26 and 10,443 in 1924-25. The disease was prevalent in almost all the districts. The largest number of deaths was reported from Pabna (4,295) followed by Midnapur (3,258), Murshidabad (3,101), 24-Parganas (2,540), Calcutta (2,401), Howrah (1,944), Burdwan 1,814), Bogra (1,610), Mymensingh (1,581), Birbhum (1,387), Rangpur (1,324), Hooghly (797), Dinajpur (686), Dacca (669), Tippera (635), Chittagong (592), Malda (552), Nadia (403),(479), Jessore (477), Noakhali Faridpur (377), and Bankura In the remaining four districts (Khulna, Rajshahi, Jalpaiguri and Bakarganj), it was between 100 to 200. Darjeeling reported only seven deaths. From the local reports, it appears that the quinquennial outbreak of small-pox, which started in December 1924, continued its ravages throughout the year 1925 and 1926 and exacted the heaviest toll from November 1926 to May 1927. Public Health Department co-operated with the district health staff in the attempts to arrest the progress of the disease. On the recommendation of the the Local Director of Public Health, Government sanctioned an additional grant for the appointment of extra vaccinators by those District Boards in whose areas the epidemic was severe. two Inspectors of the Public Health

DIAGRAM ILLUSTRATING DEATH-RATES FROM SMALLPOX AND DEGREE OF PROTECTION AFFORDED DURING 1917-18 TO 1926-27.

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Ratio of deaths grown smallpox per IQ000 of population	Burdwan	Birbhum	Bankura	Midnapur	Hooghly	Howrah	24-Parganas	Calcutta	Nadia	Murshidabad	Jessore	Khulna	Rajshahi	Dinajpur	Jalpaiguri	Darjeeling	Rangpur	Bogra	Pabna	Malda	Dacca	Mymensingh	Faridpur	Bakarganj	Chittagong	Noakhali	Tippera	Proportion of Population protected Per 10,000
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[777777] Indicate the death rates from smallpox.

Indicate the proportion of population protected by vaccination.

Department were promptly deputed to the affected places as soon as any information of an outbreak was received and were constantly kept on tour during the period from November 1926 to May 1927. A hundred temporary Sanitary Inspectors and 20 temporary Sub-Assistant Surgeons placed on epidemic duty in several districts were instructed to help the local authorities in vaccinating the people. The District Inspectors and Sub-Inspectors of Vaccination were also directed to do vaccination themselves, in addition to inspection. I also visited several districts to investigate the cause of the local continuance of the epidemic and advised the local health authorities.

- Different Methods of Vaccination.—No vaccination performed with lymph taken direct from the calf is done any more in Bengal. Glycerinated lymph was generally used, though a few Municipalities in the districts of Midnapur, Hooghly and Murshidabad indented for lanoline paste and performed with it a total number of 3,895 primary and 7,939 re-vaccination operations, of which 92.8 per cent. and 24:7 per cent., respectively, were successful. A success of 84:8 per cent. in re-vaccination was reported from Midnapur Municipality, but this figure is apparently erroneous and requires investigation. The total number of primary vaccinations and re-vacciations performed with glycerine lymph was 1,737,906and 1,528,841,1,748,675against and 1,275,712 respectively during the previous year, and the percentages of success were 95.1 and 51.5, against 96.2 and 55.5 respectively.
- Inspections.—The District Health Officer of Chittagong inspected 15.7 per cent. and that of Noakhali 11.8 per cent. of the total number of vaccinations performed. The record of inspection work of some of the District Health Officers is extremely disappointing. The District Health Officers of Midnapur, where small-pox was very severe and widespread, spent only 47 days on tour, the number of persons inspected him not being stated his report. The District Health Officer of Birbhum was out on tour for only 39 days and inspected 721 persons, while that of Nadia for only 3 days, inspecting 96 persons during the whole course of the year. It is regretted that some of the District Health Officers have not yet sufficiently realised their heavy responsibilities. Vigilant and careful inspection

is necessary to give an impetus to the staff under them to discharge their duties vigorously, especially when the number of deaths from small-pox is increasing year after year. Such a personal control is demanded to prevent unreliable figures being returned only to give a false sense of security. The district vaccination inspecting staff inspected 424,002 primary and 164,435 re-vaccination cases, or 24.5 and 11:3 per cent. of the total number of vaccinations performed in the province during 1926-27, against 676,201 primary and 220,625 re-vaccinations, or 41.2 and 22.6 per cent., respectively, during the previous year. The decrease was due to their having been kept very busy in coping with the epidemic in the various parts of their districts, and so they could not possibly much time in undertaking regular inspection work. In the rural areas, the highest percentage of primary (102.7) was inspected by the Assistant Superintendents of Vaccination of the Howrah district and that of re-vaccinations (51.8) by those of the Chittagong Hill Tracts, while the lowest percentage of inspections, both of primary and revaccination cases (3.9 and 2.8), was district returned from the Malda where the small-pox cases were very The highest scattered. percenof inspection of both mary and re-vaccination operations by the Municipal Superintendents of Vaccination was recorded in the Rajshahi district, while the lowest was returned from Jessore in case of primary vaccinations and from Bakarganj in that of vaccinations.

Bengal Vaccine Depôt.—The central depôt at Intally is the present sole source of supply of vaccine lymph. The total output of lymph during the year was 2,680,464, against 2,470,607and 1,975,780 grains of the two previous years. Two thousand, eight hundred and eighty-three calves were vaccinated during the year, against, 2,654 and 2,440 of the two preceding years, but pulp was collected from 2,668 only. The average yield of pulp per calf during the year was 251 grains, against 204, 29 grains and 182.14 grains of the previous two years. Owing to the heavy demands on account of the prevalence of small-pox, 195,840 grains of lymph were purchased from Bihar and Orissa and Madras; 2,654,690 grains of lymph were issued during the year, of which 2,650,635 grains were glycerinated and

4,055 grains landinated vaccine paste. These figures show the necessity of an adequate supply of lymph being kept in reserve at the Bengal Vaccine Depôt. The discovery by Dr. Blaxall of the Government Lymph Establishment Hendon, London, that lymph could kept without losing its potency for a long period of time, if stored at 10° Farenheit, will enable a reserve supply of lymph to be maintained in sufficient amount to meet the demand which would arise should small-pox become epidemic. Due to the failure of all efforts to increase the local calf-supply for the central depôt at Intally, a scheme is being matured to "open a branch depôt at Ramna (Dacca) and it is hoped to complete it in time for its inclusion in the budget for the year 1929-30. Meanwhile, it may be necessary to supplement the local production of lymph by purchase from other provinces.

As an item of the greatest interest to all engaged in the administration and execution of vaccination, it appears useful to report the appointment of a Committee in February 1926 by the Minister of Health in England, in conjunction with the Medical Research Council of England, for the purpose of inquiring and reporting from time to time—

- (i) on matters relating to the preparation, testing and standardisation of vaccine lymph;
- (ii) on the practical methods which are available in the light of modern knowledge to diminish or remove any risks which may result from vaccination;
- (iii) on the methods of vaccination which are most appropriate to give protection against risk of small-pox infection in epidemic and non-epidemic periods;

and to co-ordinate the work of investigation on these questions in England and abroad, having regard to corresponding work undertaken by international health organisations.

17. The reasons which led to the appointment of the above Committee may briefly be stated. The vaccine lymph used for public vaccinations in England is prepared at the Government Lymph Establishment in London, which also supplies vaccine for the public services. As a result, however, of the English Therapeutic Substances Act, 1925,

which will shortly come into operation, responsibilities will also be imposed on the British Government Departments concerned for the control of commercial vaccines. Establishments in which vaccine lymph is prepared for sale and use in this country will in future need to be licensed, and the control established will be applicable also to the products of institutes in foreign countries from which lymph is imported. A principal duty of the new Committee, therefore, will be to advise on the standard requirements and tests which should be imposed in consequence of the new legislation.

- Since the Royal Commission on Vaccination presented their final report in 1896, considerable advancement has taken place in general medical know-The substitution of calf lymph for humanised lymph has had beneficial results, and the adoption of modern methods has made the complication of septic infection of the vaccinated arm a relatively rare occurrence. Nevertheless, examples of possible risk from vaccination occasionally arise, and in this connection attention has been directed on the Continent, as well as in England, to cases in which symptoms of encephalitis or other nervous conditions have occurred shortly after vaccination.
- 19. Under the last heading of the terms of reference, the Committee has been asked to consider whether, in certain circumstances, advantage could be secured by varying the methods of vaccination, for example, in order to provide temporary immunity during outbreaks of small-pox.
- Summary.—From the stated in the preceding paragraphs, some broad and simple conclusions may be drawn. It is quite clear that the incidence of small-pox has shown a notable increase in Bengal since the year 1921, and there appears to be no evidence that the zenith of the present recrudescence has been reached. I must again draw attention to the grave risks incurred in respect of small-pox as a result of large proportion of the population which is not vaccinated. Statistics quite clearly the falling percentage of primary vaccinations to births. In view of the apprehended pandemic of smallpox forecasted as likely to occur in or about the year 1930, it becomes incumbent on all local authorities to put forth all their efforts in preparing the population to meet it whenever it comes. This

preparation should consist in wholesale vaccination and re-vaccination of the whole population.

- 21. The protection which vaccination and re-vaccination affords cannot be disputed by anyone who has had actual experience in dealing with small-pox. The long experience of the country has taught us—
 - (a) that, beyond all question, the mortality from small-pox is much less now than in pre-vaccination times;
 - (b) that the greatest diminution in the small-pox mortality is found in the early years of life, in which there is most vaccination;
 - (c) that in countries in which there is adequate vaccination and revaccination relatively to the population, there is little small-pox;
 - (d) that in houses invaded by smallpox in the course of an outbreak, not nearly so many of the inmates are attacked as of the unvaccinated in proportion to their numbers;
 - (e) that the fatality rate among persons attacked by samll-pox is much greater, age for age, among the unvaccinated than among the vaccinated;
 - (f) that the degree of protection conferred by vaccination corresponds to the quality of the vaccine and to the thoroughness with which the operation of vaccination has been performed;
 - (g) that the protection afforded by vaccination wanes with the lapse of time;
 - (h) that improved sanitation, however beneficial in itself, cannot account for these facts; and
 - (i) that though early diagnosis, prompt isolation of small-pox patients in suitable hospitals, effective disinfection, supervi-

sion of "contacts" and other such public health methods are invaluable, they are no substitute for vaccination.

22. Insufficiency and inefficiency of vaccinators, coupled with inadequacy of pay, should be remedied without further delay. No evasion of the statutory rules for the qualifications of public vaccinators should be allowed, and their prescribed duties should be strictly enforced. For this reason, a living wage must be ensured before good work, satisfactory both in quality and quantity, can be reasonably expected from the vacci-The local funds, set free by the Local Government's provision of a complete public health organisation, should employing an adequate be utilised in number of qualified vaccinators of the right stamp, to whom adequate remuneration should be offered. Health Officers, Assistant Health Officers, Sanitary Inspectors and Vaccination Inspectors should keep a close watch over the vaccination condition of their jurisdiction and exercise a strict supervision over the Health Assistants and public vaccinators' work. Those District Boards and Municipalities which still employ only season vaccinators this false economy, should abandon which costs so much in human lives, and begin at once to keep all the year round wholetime Health Assistants, who are qualified public vaccinators and whose the other services will be available in lines of public health work also.

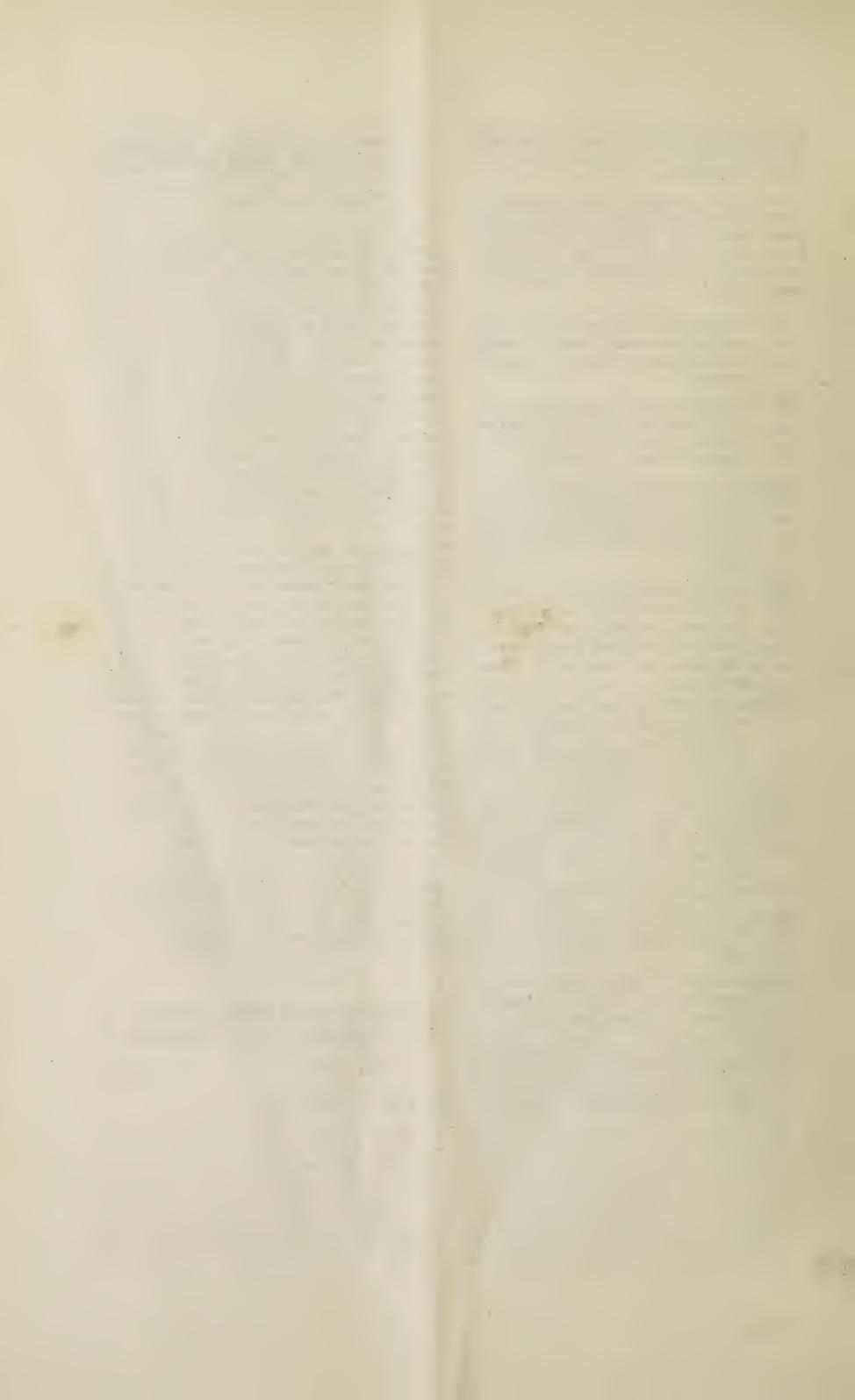
In conclusion, I should like to place on record the valuable advice and assistance always rendered me by Dr. M. K. Chakravartti, M.B., the veteran Superintendent of the Bengal Vaccine Depôt.

M. E. SUFI,

Assistant Director of Public Health, Vaccination and Vital Statistics.

CALCUTTA:

The 18th October 1927



Statistical Tables

STATEMENT

Showing particulars of vaccination performed

		٠	rural areas of ording to the	on per square	of vaccina- throughout	Total num	ber of persons	vaccinated.	of persons cach vacci-	Primary
Number.	District.		Population of the rural the districts according Census of 1921.	Average population mile,	Average number tors employed the year.	Malc.	Femalc.	Total.	Average number vaccinated by nator.	Total.
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$egin{array}{c} 1 \ 2 \ 3 \ 4 \ 5 \ 6 \end{array}$	Burdwan Division Burdwan Asansol Mining Settler Birbhum Bankura Midnapur Hooghly Howrah		1,343,485 838,655 964,487 2,595,071 900,802 778,893	500 479 369 516 780 1,502	32 14 20 42 116 45 27	$egin{array}{cccccccccccccccccccccccccccccccccccc$	22,390 26,363 32,626 29,324 75,265 15,574 12,523	55,132 62,832 75,270 68,657 190,393 38,622 35,769	1,74f 4,488 3,763 1,634 1,641 882 1,302	33,710 16,736 36,616 32,524 83,207 20,867 22,080
		tal	7,421,093	540	296		214,065	527,275	1,781	245,740
7 8 9 10 11	Presidency Divis 24-Parganas Nadia Murshidabad Jessore Khulna	sion.	1,998,318 1,390,704 1,182,983 1,700,924 1,421,116 7,694,045	527 507 566 587 301 492	147 56 57 86 44	41,704 76,822 48,523 36,725	38,507 30,127 51,750 34,561 30,608	99,722 71,831 128,572 83,084 67,333 450,542	678 1,436 2,255 966 1,530	61,990 - 38,612 49,071 47,505 45,793 242,971
12 13 14 15 16 17 18 19	Rajshahi Divisio Rajshahi Dinajpur Dinajpur Jalpaiguri Darjeeling Rangpur Bogra Pabna Malda To	on.	1,457,037 1,687,328 921,740 254,045 2,488,778 1,032,300 1,344,633 955,830 10,141,700	557 428 314 215 713 751 809 523	66 72 31 16 60 18 42 27	64,969 33,156 10,226 77,172 45,051 92,394 45,504	38,404 44,438 16,495 9,650 41,565 26,249 65,316 31,263 273,380	94,123 109,407 49,651 19,876 118,737 71,300 157,710 76,767	1,568 1,519 1,601 1,242 1,978 3,961 3,754 2,843	41,992 77,263 21,227 10,392 75,354 27,460 77,275 32,312 363,275
20 21 22 23	Dacca Division Dacca		2,975,915 4,710,669 2,202,783 2,563,849 12,453,216	1,007 759 934 734 845	66 237 46 48 388	232,379 64,854 63,292	66,540 136,783 47,289 44,978 295,590	155,640 369,162 112,143 108,270 745,215	2,594 1,557 2,803 2,255 1,930	131,199 256,094 53,573 101,091 541,957
24 25 26 27	Chittagong Divi	s	1,570,760 1,465,071 2,678,627 173,243 5,887,701	630 968 1,051 34 503	. 66 56 84 11	80,752 87,976 5,372	38,403 42,559 63,302 4,612 148,876	97,757 123,311 151,278 9,984	1,662 2,466 1,800 907	54,530 62,983 110,913 6,810
	Total of the Bengal Pr		43,597,755	578	1,596		1,117,464	2,802,933	1,865	1,629,179

Sum

	Total number	r of persons inated.	Total num tions per	ber of opera- formed.
u ř	Primary.	Re-vaccina-	Primary.	Re-vaccina- tion.
1.—By staff. Under District Boards, Municipalities, Provincial Government, Calcutta Corporation and Asansol Mines Board of Health 2.—By other agencies.	1,724,796	1,455,321	1,726,279	1,455,435
Jails, Cantonments, Dispensaries, Railways, Steamers, Tea-gardens and Factories	15,513	81,345	15 ,5 22	81,345
Total	1,740,369	1,536,666	1,741,801	1,536,780

No. I.
in the districts of Bengal during the year 1926-27.

vaccination.				Re	-vaccinati	on.	Percen successf in which were k	ul cases h results	Persons successfully vaccinated per 1,000 of population.	Perce of unk case total o	nown s to	Average as number of a successful vaccinated of the previous give year.	ersons ally during ous	Average numbe deaths small- during the	er of from pox he pre-
	Successful.							on.	essful		- nc		000 n.		00 of
Under one year.	One year and under six years.	Total of all ages.	Unknown.	Total.	Successful.	Unknown.	Primary.	Re-vaccination.	Persons succ per 1,000 of	Primary.	Re-vaccination.	Number.	Ratio per 1,000 of population.	Number.	Ratio per 1,000 of population.
. 11	12	13	14	15	16	17	18	19	20	21		23	24	25	26
4,088 7,200 5,610 7,179 9,326 3,940 4,356	18,926 9,028 23,413 23,115 50,504 16,610 15,989	32,353 16,719 35,509 32,412 80,555 20,731 21,993	109 184 50 1,543 41 16	22,022 46,096 38,654 36,133 107,186 17,755 13,689	7,615 33,585 23,851 17,901 58,958 14,361 5,809	481 151 1,997 1,335 14,033 427 2,475	95·9 93·9 96·9 99·6 96·8 99·3 99·6	34.5 72.8 61.7 49.5 55.05 80.9 42.3	$ 67 \cdot 1 \\ 70 \cdot 7 \\ 52 \cdot 1 \\ 53 \cdot 7 \\ 38 \cdot 7 \\ 35 \cdot 7 $	32 502 12 18 19 07	$\begin{array}{c} 2 \cdot 1 \\ \cdot 32 \\ 5 \cdot 1 \\ 3 \cdot 6 \\ 13 \cdot 09 \\ 2 \cdot 3 \\ 17 \cdot 1 \end{array}$	78,972 27,780 46,804 116,582 28,018 28,170	$58 \cdot 7$ $38 \cdot 1$ $47 \cdot 1$ $41 \cdot 6$ $31 \cdot 1$ $36 \cdot 1$	511 $\begin{array}{c}\\ 215\\ 176\\ 747\\ 335\\ 601 \end{array}$	·38 ·25 ·18 ·29 ·37 ·77
41,699	157,585	240,272	1,943	281,535	162,080	20,899	97.7	57.4	54.2	•79	7 · 4	326,326	43.8	2,585	•33
7,120 11,539 13,604 7,198 10,583	43,936 23,456 31,412 37,038 29,993	61,075 35,999 47,410 47,067 45,479	334 1,600 231 241 135	37,732 33,219 79,501 35,579 21,344	21,790 20,380 51,290 20,583 12,886	$\begin{array}{c} 3,991 \\ 6,075 \\ 4,676 \\ 2,822 \\ 1,649 \end{array}$	98·5 93·2 96·6 99·7 99·3	57·7 61·4 64·5 59·8 58·4	41·4 40·5 83·4 33·3 41·08	$\begin{array}{c} \cdot 53 \\ 4 \cdot 1 \\ \cdot 47 \\ \cdot 507 \\ \cdot 29 \end{array}$	10·5 18·2 5·8 7·9 7·7	79,951 53,863 45,704 61,370 60,605	$40 \cdot 38 \cdot 7 \\ 38 \cdot 7 \\ 36 \cdot 7 \\ 42 \cdot 6$	924 113 346 143 35	·46 ·08 ·29 ·08 ·02
50,044	165,835	237,030	2,541	207,375	126,929	19,213	97.6	61.2	46.	1.04	9.2	301,493	39.1	1,561	•22
22,653 15,128 9,353 4,384 12,293 1,444 7,975 19,784	17,713 46,369 8,940 3,646 52,063 16,322 54,860 10,904	41,717 71,924 20,027 9,596 71,785 23,013 74,069 30,754	140 1,333 8 761 2,010 3,689 1,118 677	52,131 32,144 29,399 9,498 43,383 43,840 80,435 44,455	40,940 24,926 10,526 3,272 30,209 17,302 40,766 27,229	1,939 2,198 1,349 2,355 2,766 9,610 4,922 8,041	99·3 93·08 94·3 92·3 93·2 83·8 95·8 92·08	78·5 77·5 35·7 34·4 69·6 39·6 50·6 61·2	55·2 57·4 33·1 40· 40·9 39·05 85·3 60·6	$\begin{array}{c} \cdot 33 \\ 1 \cdot 7 \\ \cdot 03 \\ 7 \cdot 3 \\ 2 \cdot 6 \\ 13 \cdot 4 \\ 1 \cdot 4 \\ 2 \cdot 9 \end{array}$	3.7 6.8 4.5 24.7 6.3 21.9 6.1 5.5	59,533 79,251 30,198 13,443 61,632 28,817 39,189 45,232	40·8 47·4 32·7 52·9 24·7 27·9 29·07 47·2	70 207 492 6 216 220 157 126	·048 ·12 ·53 ·02 ·08 ·11 ·11 ·13
93,015	210,817	342,885	9,736	335,285	195,170	33,180	94.3	58.2	53.5	2.1	9.9	357,295	35.2	1,494	1 · 4
10,534 9,172 5,556 1,835	99,143 157,397 35,245 53,225	123,460 235,186 52,378 96,290	4,848 7,447 553 2,144	24,441 113,168 58,769 7,179	15,188 80,422 31,379 3,665	2,608 8,616 5,749 533	$\begin{array}{c} 94 \cdot 1 \\ 91 \cdot 8 \\ 97 \cdot 7 \\ 95 \cdot 2 \\ \end{array}$	$\begin{array}{c} 62 \cdot 1 \\ 71 \cdot 06 \\ 55 \cdot 2 \\ 51 \cdot 05 \end{array}$	$46 \cdot 6$ $66 \cdot 9$ $38 \cdot 4$ $31 \cdot 1$	$ \begin{array}{c} 3 \cdot 6 \\ 2 \cdot 9 \\ 1 \cdot 03 \\ 2 \cdot 1 \end{array} $	$ \begin{array}{c} 10 \cdot 6 \\ 7 \cdot 6 \\ 9 \cdot 7 \\ 7 \cdot 04 \end{array} $	100,639 238,259 52,130 71,816	$\begin{array}{c} 33.8 \\ 50.5 \\ 23.6 \\ 27.01 \end{array}$	732 617 100 42	·24 ·13 ·04 ·01
27,097	345,010	507,314	14,992	203,557	130,654	17,506	93.6	61.1	51.2	2.7	8.6	462,844	37.09	1,491	-11
6,411 7,219 11,869 1,115	44,022 42,671 88,690 4,797	52,078 58,690 108,359 6,749	1,061 2,010 1,221 12	43,240 60,356 40,365 3,174	17,146 22,439 27,735 907	8,426 13,481 3,043 77	95·4 93·1 97·8 99·1 96·1	39·6 37·1 68·7 28·5	$ \begin{array}{r} 44.07 \\ 55.3 \\ 50.8 \\ 44.1 \\ \hline 00000000000000000000000000000000000$	1·9 3·1 1·1 ·18	19·4 22·3 7·5 2·4	73,Ī80 62,351 141,309 8,288	46·5 42·5 52·3 47·8	607 133 150	·33 ·08 ·04 ··
$\frac{26,614}{238,469}$	$\frac{180,186}{1,059,433}$	$\frac{225,876}{1,553,377}$	33,516	$\begin{vmatrix} 147,135 \\ \\ 1,174,887 \end{vmatrix}$	683,060	$\begin{array}{c} 25,027 \\ \hline 115,825 \end{array}$	94.7	$\begin{array}{c} 46.3 \\ \hline 58.1 \end{array}$	$\frac{49.9}{50.9}$	$\frac{1.8}{2.05}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	285,128 1,733,086	$\frac{48 \cdot 4}{39 \cdot 7}$	890	·15
1	1,000,100	1,000,017	55,513	-,1,1,00,		120,020		33,1		1	<u> </u>	1,750,000		0,021	

mary.

				_		1		
Percentage cases in v were k	e of successful which results nown.		number of ccinated by ccinator.	Number o successfu na		Rates of successful	Total cost of	Average cost
Primary.	Re-vaccina-	Vaccina- tors employed.	Persons vaccinated by each vaccinator.	Under one year.	One year and under six years.	vaccinations per 1,000 of population.	department.	of each successful case.
95.2	52.8	1,807	1,761	271,511	1,107,589	52.8	Rs. A. P. 4,52,819 14 9	Rs. A. P.
90 • 4	39 · 4	No statisti	 cs available. 	2,887	2,167			
95·1	52.09			271,398	1,109,756	••••	••••	••••

STATEMENT

Showing the cost of vaccination in the districts of

1 Number.	Circles and districts.	ω Superior supervising officer.	Salary.	Indian supervising officer.	Pay.	∠ Paid vaccinators.	Pay.	© Lincensed vaccina- tors.	01 Pay.	1 Clerks.	Pay. 12	13 Peons.	Pay.	Total pay of establishment.
			Rs. A. P.		Rs. A. P.		Rs. A. P.				Rs. A.		Rs. A. P.	Rs. A. P.
1	Burdwan Division. Burdwan			11	3,030 9 0	46	11,574 4 8					2	310 9 D	14,915 6 8
2	Birdwan Birbhum			3	1,252 3 0	20	3,525 5 5				• • • •			4,777 8 5
3	Bankura			3	1,451 11 0	42	3,500 12 0				• • • •			4,952 7 0
4	Midnapur			7	2,419 6 0	116	10,104 13 9							12,524 3 9
5	Hooghly		• • • •	4	1,150 0 0	45	4,125 12 6						• • • •	5,275 12 6
6	Howrah			3	1,819 6 0	27	3,705 7 0				• • • •			5,524 13 0
	Total of the Burdwan			31	11,123 3 0	296	36,536 7 4					2	310 9 0	47,970 3 4
	Division. Presidency Division.													
7	24-Parganas			13(1)	2,900 9 0	147	10,022 3 3							12,922 12 3
.8	Bengal Vaccine Depot			8	10,991 7 0					2	861 1	2	355 14 0	12,208 6 0
9	Calcutta (2)			17	26,160 0 0	68	42,101 0 0					29	5,460 0 0	73,721 0 0
10	Nadia ···			6	2,486 1 0	50	5,554 6 0				• • • •			8,040 7 0
11	Murshidabad			5	2,100 0 0	57	8,013 14 0							10,113 14 0
12	Jessore			6	2,365 3 0	86	5,934 2 0							8,299 5 0
13	Khulna			4	1,679 10 0	44	3,042 8 0							4,722 2 0
	Total of the Presidency		••••	59	48,682 14 0	452	74,668 1 3			2	861 1	31	5,815 14 0	1,30,027 14 3
	Division. Rajshahi Division.													
14				4	1,730 0 0	60	5,163 14 0							6,893 14 0
15	T	• •		8(3)	3,100 2 0	72	8,109 14 0							11,210 0 0
16	Jalpaiguri			5(4)	2,299 13 0	31	4,342 6 11							6,642 3 11
17	Darjeeling			4	1,422 4 0	16	2,696 13 0							4,119 1 0
18	Rangpur			5	2,122 14 0	60	7,852 12 0							9,975 10 0
19	Bogra			2	723 0 0	18	2,479 11 0							3,202 11 0
20	Pabna			3	1,490 0 0	42	5,595 8 0				••••			7,085 8 0
21	Malda			2	1,036 13 0	27	5,081 6 9						• • • •	6,118 3 9
	Total of the Rajshahi			33	13,924 14 0	326	41,522 5 8							55,247 3 8
	Division. Dacca Division.													
22				5	1,763 11 0	60	5,412 9 6							7,176 4 6
23	Dacca Mymensingh			7	2,485 0 0	237	24,025 0 0							26,510 0 0
24	Faridpur		• • • •	5	1,631 10 0	40	2,861 4 0							4,492 14 0
25	Bakarganj			5	1,785 9 0	48	5,462 0 0							7,247 9 0
	Total of the Dacca			22	7,665 14 0	385	37,760 13 6	-					••••	45,426 11 6
	Division.	,												
0.0	Chittagong Division.			4	1,771 10 0	60	6,460 14 0							8,232 8 0
26	Chittagong	'	••••	4	2,089 3 0	50	4,993 0 0		••			''		7,082 3 0
27	Noakhali	''	••••	4	1,830 0 0	84	6,871 2 0							8,701 2 0
28 29	Tippera Chittagong Hill Tracts			3	1,423 0 0	11	1,363 3 0							2,786 3 0
20	Total of the Chittagong			15	7,113 13 0	205	19,688 3 0						• • • •	26,802 0 0
	Division. Total of the Vaccination			160	88,510 10 0	1,664	2,09,975 14 9	-	-	2	861 1	33		3,05,474 0 9
	Circles.													
			14.000 0 0		0.077 0.0									
30	Vaccination Bureau (5)	1	14,300 0 0	169	3,375 0 0 91,885 10 0	1 664	2 00 075 14 0	-			961 1	99	6 196 7 0	17,675 0 0
	Total of the Presidency	1	14,300 0 0	$\frac{162}{2}$	462 0 0	$\frac{1,664}{144}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		<u> · · · </u>	$\frac{2}{-}$	861 1	$\frac{33}{2}$	$\begin{array}{ c cccccccccccccccccccccccccccccccccc$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$
3 1	Municipalities		••••	2	402 0 0	144	21,410 14 4	'''			****	2	307 4 0	20,200 2 10
32	Railways, tea gardens and factories				••••	••)	••••			• • •	••••	••	•••	
33	Jails	••			••••	55	••••	-	••	••		··	••••	
	Grand total	1	14,300 0 0	164	92,347 10 0	1,863	2,37,394 13 1	••		2	861 1	35	6,513 11 6	3,51,417 3 7

 ⁽¹⁾ Includes 4 sanitary inspectors of the District Board but their pay has not been shown.
 (2) The cost of the establishment of the Animal Vaccine Depot of the Calcutta Corporation for the entertainment of one
 (3) Includes 3 sanitary inspectors and one supernumerary doctor.
 (4) One Sub-Inspector and one kaviraj were appointed by the District Board. Pay and travelling allowances drawn by
 (5) Cost of the establishment of the Assistant Directors of Public Health has been excluded from this statement.

No. 11.

Bengal during the year 1926-27.

	Co	ntingencies.		, i						ess- ion na-	Jo Julys
Travelling				Central revenues.	Provincial		Municipalities	States.		r of success- vaccination re-vaccina-	cost of successful
allowance.	Cost of lymph.	Other contingencies.	Total cost.	al re	revenues.	Local fund.	and Railways.		Total.	va va re-	
	lympn.	contingencies.		entr				Native		Number ful v and r	Average each case.
16	17	18	19	20	21	22	23	24	25	26	27
RS. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.	Rs. A. P.		RS. A. P.		Rs.A. P.
4,284 0 8		3,764 12 0	22,964 3 4		6,949 3 0	16,015 0 4			22,964 3 4	90,272	0 4 1
973 15 10		68 10 6	5,820 2 9		2,024 6 0	3,795 12 9			5,820 2 9	59,360	0 1 7
881 12 0		224 14 0	6,059 1 0		3,239 14 0	2,819 3 0		••	6,059 1 0	50 313	0 1 9
1,843 13 0		204 0 3	14,572 1 0	• •	4,263 3 0	10,308 14 0	••••	• •	14,572 1 0	,	0 1 8
1,197 10 6	••••	85 2 0	6,558 9 0		3,124 10 0	3,433 15 0			6,558 9 0	, -	0 3 0
569 11 0		118 0 0	6,212 8 0		2,389 1 0	3,823 7 0	••••		6,212 8 0	27,802	0 3 3
9,750 15 0	••••	4,465 6 9	62186 9 1		21,990 5 0	40,196 4 1	••••		62,186 9 1	402,352	0 2 2
1,773 2 0	••	741 15 6	15,437 13 9		8,073 11 0	7,364 2 9	• • • •	• •	15,437 13 9	82,865	0 3 3
1	15,110 11 0		44,945 5 0	••	44,945 5 0	• • • •	• • • •	• •	44,945 5 0	• • • •	• •
1,800 0 0	••••	12,840 0 0	88,361 0 0	••			88,361 0 0	••	88,361 0 0	77,359	1 2 3
1,571 11 0	••••	219 10 0	9,831 12 0	• •	4,057 12 0	5,774 0 0	••••	• •	9,831 12 0	56,379	0 2 9
2,810 9 0	••••	535 6 6 275 2 0	13,459 13 6 9,903 3 0	• •	4,574 15 0 5,993 15 0	8,884 14 6 3,909 4 0	• • • •	• • •	13,459 13 6	98,700 67,650	$\begin{bmatrix} 0 & 2 & 2 \\ 0 & 2 & 4 \end{bmatrix}$
1,328 12 0 671 3 0	• • • •	172 1 0	5,565 6 0		2,350 13 0	3,214 9 0	****		5,565 6 0		$\begin{bmatrix} 0 & 2 & 4 \\ 0 & 1 & 6 \end{bmatrix}$
9,955 5 0	15,110 11 0		1,87.504 5 3		69,996 7 0	29,146 14 3	88,361 0 0		1,87,504 5 3	441,318	$\begin{bmatrix} 0 & 1 & 0 \\ 0 & 6 & 9 \end{bmatrix}$
	,										
1,763 5 0	•••	1,353 1 0	10,010 4 0		3,561 1 0	6,449 3 0			10,010 4 0	82.657	0 1 11
1,740 6 0			13,099 1 0	1		11,132 13 0	• • • •		13,099 1 0		$\begin{bmatrix} 0 & 1 & 11 \\ 0 & 2 & 2 \end{bmatrix}$
1,543 10 0		153 0 0	8,338 13 11		3,641 10 0	4,697 3 11	••••		8,338 13 11	30,553	
2,398 6 0		93 2 0	6,610 9 0		2,887 6 0	3,723 3 0	• • • •		6,610 9 0	12,868	0 8 3
1,784 0 0	• • • •	632 2 0	12,391 12 0		4,760 14 0	7 630 14 0	•••		12,391 12 0	101,994	0 1 11
754 13 0	• • • • •	10 7 6	3,967 15 6	••	1,877 13 0	2,090 2 6	••••		3,967 15 6	40,315	0 1 7
633 4 0	••••	384 15 0	8,103 11 0	••	4,723 4 0	3,380 7 0	••••	• •	8,103 11 0		0 1 2
529 2 0	••••	120 1 0	6,767 6 9		2,265 15 0	4,501 7 9	••••		6,767 6 9		0 1 10
11,146 14 0	••••	2,895 7 6	69,289 9 2		25,684 3 0	43,605 6 2	••••	••	69,289 9 2	538,055	0 2 1
1,141 4 0	• • • •	300 7 6	8,618 0 0	••	3,618 0 0	5,000 0 0	• • • •	••	8,618 0 0	138,648	
1,267 13 0	• • • •	549 11 0	28,327 8 0	••	3,752 13 0	24,574 11 0	••••	••	28,327 8 0	315,608	
1,438 12 0	• • • •	466 6 0 205 4 6	6,398 0 0 8,496 2 6	••	3,018 6 0 2,642 8 0	3,379 10 0 5,853 10 6	••••	••	$\begin{bmatrix} 6,398 & 0 & 0 \\ 8,496 & 2 & 6 \end{bmatrix}$		$\begin{bmatrix} 0 & 1 & 3 \\ 0 & 1 & 4 \end{bmatrix}$
1,043 5 0 4,891 2 0	••••	1,521 13 0	51,839 10 6	··-	13,031 11 0	38,807 15 6	••••		51,839 10 6		$\begin{bmatrix} 0 & 1 & 4 \\ \hline 0 & 1 & 4 \end{bmatrix}$
4,001 2 0		1,021 10 0	01,000 10 0		15,051 11 0	50,007 10 0	••••		01,000 10 0		
		100 77	0.007		0.15.				0.004	00.00	0 0
1,125 8 0	• • • •	463 15 0	9,821 15 0	• • •	2,174 11 0	7,647 4 0	••••	• •	9,821 15 0		0 2 3
1,226 5 9 1,510 15 0	••••	51 8 0 269 0 9	8,360 0 0 10,481 1 9		4,115 8 0 4,444 3 0	4,244 8 0 6,036 14 9	••••	••	8,360 0 0 10,481 1 9		0 1 8
1,510 15 0	••••	30 0 0	4,109 10 0	• • •	4,109 10 0	0,030 14 9		• •	4,109 10 0		$\begin{bmatrix} 0 & 1 & 8 \\ 0 & 8 & 7 \end{bmatrix}$
5,156 3 0		814 7 9	32,772 10 9		14,844 0 0	17,928 10 9	• • • •		32,772 10 9	294,103	0 1 9
40,900 7 0	15,110 11		4,03,592 12 9	•••		1,69,685 2 9	88,361 0 0	••	4,03,592 12 9	2,236.437	0 2 9
1,619 12 0			19,294 12 0		19,294 12 0				19,294 12 0		
42,520 3 0	15,110 11		4,22,887 8 9		1,64,841 6 0		88,361 0 0		4,22, 87 8 9	2,236,437	0 3 0
423 1 3		1,241 1 11	29,932 6 0		••••		29,932 6 0		29,932 6 0	175,648	0 2 8
					•						
••••	••••	••••	••••	••	••••	••••	••••	• •	••••	32,032 14,083	0
42.943 4 3	15.110 11	43.348 11 11	4,52,819 14 9		1,64,841 6 0	1,69,685 2 9	1,18,293 6 0	•••	4,52,819 14 9		0 2 11
1 3	,	1	1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		I_,,_	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1	1	, , , , , , , , , ,	1 , , , , , , ,	1

Superintendent, one calf Vaccinator and nine menials has been included. them have been shown.

STATEMENT No. 111.

Showing particulars of vaccination performed by vaccinators attached to municipalities, dispensaries, and other agencies in the Presidency of Bengal during the year 1926-27.

		Number of municipalities, dispensaries, etc., in each district to which a vaccinator is attached.	of vaccinators attacheach municipality, dis-	persons vacci-	Average number of persons vaccinated by each vaccinator.		Numbe	er of case vaccinate	s primari ed.	lly		umber of c -vaccinat		of succase we result	entage ccessful ses in rhich ts were own.	of u	centage nknown ases to l cases.
	Districts.	nicip in ea inato	nun du	of]	nber 7 each			Successfu	1.			T		-	1.	-	1 .
		of muste.,	of of etc.	Total number nated.	nu sed by										Re-vaccination.		ation
ber.		nber cles, elich a	fumber ed to e pensary,	nu no ed.	rage cinat		Under one year.	yea wnde	Total of all ages.	Unknown.		ssful	lown.	ary.	accin	ary.	accin
Number.		Num sar wh	Number ed to e pensary,	Tots	Ave	Total.	Under year.	One year and under six years.	Total ages.	Unkı	Total.	Successful.	Unknown.	Primary.	Re-v	Primary.	Re-vaccination.
_1	22	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Burdwan	6	8	7,046	880	3,115	1,410	1,327	2,998		0.001	0.505			20.		
. 2	Birbhum	1	4	3,216	804	777	40	579	753		3,931 2,439	2,507 1,868	56	$\begin{array}{ c c c c }\hline 96.2 \\ 96.9 \\ \hline \end{array}$	63.7		1.4
3	Bankura	3	3	4,970	1,656	2,719	439	1,827	2,688	2	2,251	414	115	98.8	18.3		7 5.1
4	Midnapur	7	7	12,644	1,793	2,809	304	1,733	2,556	231	9,835	2,741	2,604	90.9	27.8	8.2	$26 \cdot 4$
5	Hooghly	10	12	16,724	1,393	7,479	1,054	4,848	7,107	196	9,245	4,477	1,438		2 48 · 4	2.6	15.5
6	Howrah	2	7	11,616	1,659	4,825	2,194	2,336	4,625	98	6,799	1,281	810	95.8	18.8		3 11.9
7	24-Parganas	25	29	23,818	821	12,643	3,684	5,639	12,314	73	11,200	5,589	1,003	97.3	49.9	.5	
8	Calcutta	1	(1) 67	216,700	3,234	29,162	16,496	9,211	26,288	1,166	187,538	51,071	35,624	90.1	27.2	3.9	18.9
9	Nadia	9	9	5,371	596	3,203	462	2,366	3,045	108	2,169	792	979	95.06	36.5	3.3	45.1
10	Murshidabad	6	7	7,825	1,117	2,596	877	1,576	2,538	7	5,229	2,366	72	97.7	45.2	•2'	13.7
11	Jessore	3	3	782	260	324	37	263	324		458	164		100	35.8		
12	Khulna	3	3	1,657	562	505	159	301	496	5	1,152	373	142	98.2	32.3	.99	12.3
1 3	Rajshahi	2	3	2,156	718	1,004	387	539	961	12	1,329	542	232	95.7	40.7	1.1	18.2
14	Dinajpur	1	1	1,902	1,902	459	130	276	453	1	1,443	506	350	98.6	35.06	•21	24.2
15	Jalpaiguri	1	1	854	854	398	180	206	396		458	149	20	99.2	32.5		4.3
16	Darjeeling	2	2	3,926	1,963	884	522	214	856	28	3,042	968	452	96.8	31.8	3.1	14.5
17	Rangpur	2	3	3,174	1,058	900	113	663	895	5	2,274	1,219	261	99.4	43.6	-58	11.03
18	Bogra	2	2	816	408	264	40	153	207	14	552	144	67	78.4	26.08	5.3	12.1
19	Pabna	2	3	3,853	1,284	1,677	383	1,089	1,606	2	2,176	675	48	95.7	31.02	·11	2.2
20	Malda	3	3	3,227	1,075	1,376	395	866	1,334	12	1,851	1,508	96	97.01	81.4	·87	5.1
21	Dacca	2	8	16,810	2,101	7,181	2,037	3,870	6,172	177	9,757	1,275	348	86.3	13.006	2.4	3.5
22	Mymensingh	8	8	6,777	847	3,630	537	2,554	3,274	236	3,148	1,082	741	90.1	34.3	6.5	20.3
23	Faridpur	3	4	3,468	867	2,082	243	1,535	1,983	20	1,386	224	274	95 · 2	16.1	•96	19.7
24	Bakarganj	6	5	5,917	1,183	2,317	279	1,142	2,197	40	3,600	1,406	309	94.8	39.5	1.7	8.5
25	Chittagong	2	3	2,580	860	1,122	93	857	980	20	1,458	265	349	87.3	18.1	1.7	23.9
26	Noakhali	1	3	5,510	1,836	1,367	150	1,020	1,237	61	4,143	1,306	609	90.5	31 · 4	4.4	14.6
.27	Tippera	3	3	3,845	1,281	2,282	397	1,467	1,965	65	1,685	488	466	86.1	28.9	2.8	27.6
,	Total	116	211	377,184	1,788	97,100	33,042	48,156	90,248	2,579	280,548	85,400	47,465	92.9	30.4	2.6	16.9
														-			
	Vaccinations performed by—																
	Railways	••	••	9,563		1,424	363	549	1,334	5	8,139	6,076	29	93.6	74.6	.35	•35
	Steamers		••	9,534	• •	••	• •			••	9,534		9,534	• •		• •	100
	Tea Gardens		••	7,543	••	5,203	2,524	1,607	4,727	411	2,349	934	322	90.8	39.7	7.8	13.7
	Factories			37,347	••	8,605	••	••	7,786	••	(2)28,742	11,151	• •		51.4		••
	Dispensaries	••	••	31	••	15	• •	11	15	• •	16	9	• •		56.2	• •	••
	Jails	••	55	32,840	597	275	••	••	170	51	32,565	13,913	4,203	61.8	42.7	18•5	12.9
	Grand total	116	266	474,042	1,782	112,622	35,929	50,323	104,280	3,046	361,893	117,483	61,553	92.5	32 · 4	27.04	17.008

(1) 8 Extra vaccinators were entertained for epidemic work.
(2) This figure includes 7,052 operations performed in the Ludlow Jute Mills in the Howrah District which did not furnish any detail.

COMPARATIVE STATEMENT No. IV.

Showing the number of persons Primarily vaccinated and the number of those persons who were successfully vaccinated in each of the undermentioned official years.

1	1926-27.	Number success- fully vacci- nated	21	6,749	90,248	1,546,628	14,032	Nii	1,657,657
	1920	Total number.	50	6,810	96,813	1,621,173	15,513	Nil	1,740,309
	-26.	Number success- fully vacci- nated.	19	8,639	86,961	1,543,133	18,016	28,827	1,685,516
	1925-26.	Total number.	18	8,675	91,550	1,599,810	19,756	29,529	1,749,320
	-25.	Number success- fully vacci- nated.	17	7,273	97,918	1,477,762	12,047	NII	1,595,000
	1924-25.	Total number.	16	7,337	102,119	1,529,956	13,908	Nil	1,653,320
	-24.	Number success- fully vacci- nated.	15	5,781	74,734	1,430,198	12,220	2,570	1,525,503
	1923-24.	Total number.	14	5,890	73,402	1,486,827	13,573	3,053	1,587,745
ated.	.23.	Number success- fully vacci- nated.	13	6,516	75,966	1,232,857	6,017	140,775	1,462,131
Persons primarily vaccinated.	1922-23	Total number.	12	6,640	79,473	1,285,340	7,038	144,210	1,522,701
ersons prim	1921-22.	Number success- fully vacci- nated.	11	6,404	73,253	770,282	5,294	367,079	1,222,312
		Total number.	10	6,489	76,194	796,737	5,793	378,464	1,203,677
	-21.	Number success- fully vacci- nated.	0	6,432	66,133	581,886	7,451	708,862	1,370,764
	1920-21	Total number.	8	6,504	68,592	602,879	7,892	728,570	1,414,437
	.20.	Number success- fully vacci- nated.	7	5,581	110,026	462,171	12,590	1,006,245	1,596,613
	1919-20.	Total number.	9	5,646	114,722	476,163	13,893	1,031,025	1,641,449
	19.	Number success- fully vacci- nated.	5	7,108	57,328	277,372	5,973	917,348	1,265,129
	1918-19.	Total number.	4	7,261	61,729	287,532	6,419	923,479	1,286,420
	-18.	Number success- fully vacci- nated.	00	7,296	78,439	188,953	6,915	1,025,332	1,306,935
	1917-18.	Total number.	C1	7,473	82,457	ST .	7,083	1,061,246	1,349,579
	Establishment.		1	Government	Municipalities	District Boards	Dispensaries, Railways, Tea Gardens, Fac- tories and Jalls.	Work done by Licenzed Vaccinators.	Total

STATEMENT No. V.

Particulars of vaccination verified by the Inspecting Officers during the year 1926-27.

Percentage of inspection to total number Vaccinated.	By Civil pal Superin- By Assistant Surgeons and District Health Officers. By Munician By Assistant Conficers and District Palth Officers. By Munician By Assistant By Assistant Conficers and District Palth Conficers. By Munician By Assistant By Assistant Conficers and District Palth Conficers. By Munician By Assistant Conficers and District Conficers and District Palth Conficers. By Munician By Assistant Conficers and District Conficers and District Conficers. By Munician By Assistant Conficers and District Conficers and District Conficers. By Civil By Assistant Conficers and District Conficers and District Conficers and District Conficers. By Munician Percentage Conficers and District Conficers and District Conficers and District Conficers. By Assistant Conficers Con	Primary. Re-vacci- nation. Primary. Re-vacci- nation.	14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 29	·3 2·9 31·4 30·2 63·3 68·2 99·05 50 94·5 57·9 67·05 70·8 97·2 60·5	.55 1·3 30·5 29·8 18·6 4·8 96·05 79·3 95·8 68·4 96·9 67·4 96·9 61·7	·8 1·4 43·9 30·8 9·8 13·8 100 99·04 99·3 17·2 100 65·4 99·6 49·5	$ \ \ \dots \dots 26 \cdot 6 22 \cdot 09 6 \cdot 6 5 \cdot 6 \dots \dots \dots \dots \dots 100 67 \cdot 1 97 \cdot 008 57 \cdot 3 96 \cdot 8 55 \cdot 05 \dots $	6 23.1 21.2 22.9 44.8 17.6 99.4 61.08 96.8 69.2 99.6 66.9 99.3 80.9	·04 ·43 53·3 44·7 102·7 9·6 98·8 27·5 73·2 20·9 99·07 35·08 99·6 42·3	·6 ·95 40·6 35·8 13·1 12·8 98·3 24·7 97·9 41·7 96·7 50·3 98·5 57·7	$ \ \ \dots \dots \dots \dots \dots \dots \dots \dots \dots $.09 35.3 23.8 22.3	·3 3·05 30·8 35·2 23·2 16·09 · 98·3 97·6 96·1 47·1 97·9 72·9 96·6 64·5	·9 ·18 12·6 12·2 62·1 13·1 99·8 73·1 85·3 25 98·5 65·04 99·7 57·8	.68 2.4 19.00917.4 10.9 8.4 99.7 32.5 100 9.4 97.7 41.009 99.8 58.4	.5 .31 86.5 74.8 28.4 4.2 98.6 59.03 96.6 31.009 99.2 81.3 99.3 78.5	·4 4·4 82·3 58·5 19·01 12·4 85·1 58·1 99·2 33·01 94·8 73·5 93·08 77·5·	33 .87 43.9 46.5 43.8 15.8 8.7 28.01 100 27.2 94.6 42.5 94.3 35.7	· 3 · 08 31·4 23·8 59·6 32·1 · 99·8 50· 98·9 29·005 99·7 37·1 92·3 34·4	·1 ·41 43·8 32·1 12·5 12·6 ·. ·. 99·4 97·7 99·4 50·6 97·2 88·1 93·2 69·6	.67 3·1 37·8 72·4 48·6 23·2 64·3 5·8 85·4 23·7 95·01 47·8 83·8 39·6	·3 4·7 48·4 35·6 6·8 3·4 · · · 99·1 39·3 97·4 31·2 94·6 44·8 95·8 50·6	1.9 28.05 5.8 3.9 2.8 99.6 80.2 90.9 27.7 98.8 53.2 92.08 61	58 61.7 45.9 26.2 7.7 99.6 69.6 15.6 99.2 49.5 94.1 62.1	.18 .07 26.04 32.8 9.1 4.3 96.7 71.4 94.7 16.7 96.2 59.5 91.8 71.06	·8 1·6 50·1 51·6 55·6 19·4 98 7·6·3 99·04 15·7 96·1 65·1 97·7 55·2	·3 ·11 19·2 3·7 26·8 8·8 78·8 25 99·5 76·8 97·3 69·3 95·2 51·05	·7 4·6 13·01 14·8 39·07 11·3 98·5 42·1 100 22·2 96·5 59·4 95·4 39·6	·8 ·52 35·1 11·5 91·003 15·5 32·9 40·1 97·2 45·9 98·1 45·5 93·1 37·1	72 -27 18.8 29.7 11.8 4.2 91.3 67.5 98.5 31.1 97.7 75.9 97.8 68.7	43.1 51.8 96.3 22.2 99.1 28.5	
			56	67.05	6.96	100	1-	9.66	20.66	2.96	:	97	•			- 66	-16	•	-66	•	95.01	94.6							98.1	97.7	96.3	:
successicted.	Munici-Superindents of scination Munici-Munici-Sanitary	Re-vacci-		57	89	17				41.7	88	. 6	47	25		31		27.2		9.09	23.7	31.2	27	15		15	8.92	22.2	45	31	:	:
s found er inspe			24	94.5			100		73.2	6.76	98.2		96.1	85.3			99.2		98.9	99.4	85.4		6.06	9.69	94.7	0.66	99.5	100	97.2	98.5		:
of case	r Civil rgeons Distric lealth	Re-vacci-	- 53	1			:		27	42	:		26	73.1	32.5		58.1	28.0	-09	97.7	2.0	39.3		:		76.3		42		67	: 	:
centage			22	0.66	0.96	10	:	99.4	8.86	98.3	10	10	98.3	8.66	2.66	98.6	85.1		8.66	99.4	64.3	99.1	9.66	$9 \cdot 66$		86	8.82	98.5	32.9	91.3	<u>:</u>	:
Pel	Assistar ectors o ublic fealth.			:	:	•	:	:	:	:	.:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	<u>:</u>	: 	:	:
				:	<u>:</u>	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	<u>:</u>	:	:	:
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cage of i	By Ci- Surgeo and Dist Healt Officer	Primary.	14	7.3	-55	1.8	:	2 9.2	4.04	9.	:	.16	es :	3.9	89.	1.5	4.4	.33	6.3	2.1	29.	4.3		.58	.18	8.4	2.3	15.7	11.8	.72	:	:
Percen		Re-vacci- nation.	13	:	-:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	By Assistant Directors of Public Health.	Primary.	12	:	:	:	:	;	:	-:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	•
		Re-vacci- nation.	11	46,470	1,859	5,018	5,992	3,133	1,326	4,674	:	3,599	12,793	4,663	1,802	2,195	4,015	4,654	3,150	5,334	10,205	2,810	1,279	1,905	4,901	11,391	638	7,891	9,382	1,709	1,647	:
	By Assistant Superintendents of Vaccination.	Primary.	10	31,970	6,837	3,198	5,549	9,344	22,682	8,180	:	8,649	11,433	29,533	5,023	11,940	14,594	9,887	6,189	9,460	13,349	5,310	1,271	34,491	23,507	29,722	27,139	21,305	57,328	13,175	2,937	:
		Re-vacci- nation.	6	1,191	727	969	2,173	2,118	3,040	4,018	57,253	208	1,834	56	201	862	845	213	724	240	400	775	108	4,487	1,034	716	134	216	479	501	:	:
	By Municipal Superintendents of Vaccination and Municipal Sanitary Inspectors.	Primary.	œ	186	237	1,176	749	1,593	2,572	5,131	15,055	1,133	801	41	96	869	378	174	278	395	100	812	386	4,555	945	1,045	446	146	470	407	:	:
inspected.		Re-vacci- nation.	7	1,982	518	526	:	4,119	69	360	:	31	2,425	29	528	166	1,423	257	oc	179	137	3,856	875	:	87	934	∞	2,015	319	1111	:	:
Total number inspected	By Civil Surgeons and District Health Officers.	Primary.	9	3,708	203	611	:	1,812	894	372	:	65	1,175	-1,864	311	671	3,452	28	973	1,588	185	3,384	2,072	763	462	2,598	2,354	8,573	7,472	805	:	:
Tota	istant ors of olic	Re-vacci- nation.	5	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	;	:	:	:	:	:	:	:	:	:
	By Assistant Directors of Public Health.	Primary.	4	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	nber of	Re-vacci- nation.	හ	72,049	41,093	38,384	117,021	27,000	20,488	48,932	187,538	35,388	84,730	36,037	22,742	53,283	33,587	29,857	12,540	45,657	44,392	82,611	46,306	34,198	116,216	60,094	10,779	44,698	64,477	42,050	3,174	81,345
	Total number of persons vacci- nated.	Primary.	61	53,561	37,393	35,243	86,016	28,346	26,897	74,608	29,162	41,814	21,667	47,829	46,248	12,996	77,722	20,648	11,262	76,254	27,724	78,952	33,688	138,252	259,723	55,517	103,408	55,639	64,344	113,073	6,810	15,513
	District.		П	Burdwan	Birbhum	Bankura	Midnapur	Hooghly	Howrah	24-Parganas	Calcutta	Nadia	Murshidabad	Jessore	Khulna	Rajshahi	Dinajpur	Jalpaiguri	Darjeeling	Rangpur	Bogra	Pabna	:	Dacea	ngh	Faridpur	:	Chittagong	Noakhali	Tippera	ittagong Hill	Railways, steam-

STATEMENT No. VI.

Showing, side by side, the ratios per mille of population of deaths from small-pox and the number of successful vaccinations during the ten years ending 1926-27.

1926-27.	Number of successful vaccinations.	21	95,777 62,195 145,873 47,150 105,185 105,185 105,185 105,185 105,185 105,185 105,185 103,842 65,153 84,759 117,116 117,116 117,116 86,759 104,265 104,265 7,656 7,656	2,458,200
15	mori saths of deaths from small-pox.	20	1.5 1.6 1.6 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	89.
1925-26.	Number of successful Vaccinations,	19	141,733 41,778 41,778 143,575 41,778 42,875 127,161 56,042 66,033 66,033 66,033 66,033 77,366 77,366 77,366 73,337 140,485 140,485 16,099 73,338 88,071 10,099	2,395,739
19,	Ratio of deaths from small-pox,	18	1.009 1.001 5886 1.5886 1.595 2.006 1.76 1.204 1.22 0.02 0.04 1.22 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03	'
1924-25.	Number of successful vaccinations.	17	92,481 46,361 121,207 41,7207 41,989 110,916 106,242 66,202 77,1232 77,1232 77,1232 77,1232 77,1232 77,1232 77,1440 13,500 13,	2,096,383
19,	Ratio of deaths from small-pox.	16		. 22
24.	Number of successful vaccinations.	15	70,268 112,358 112,358 112,358 36,726 36,726 36,726 50,551 10,516	1,790,927
1923-24	Ratio of deaths from small-pox.	14	009 008 009 006 006 001 001 001 003 003 004 004 004 004 007 007 007 008 009 009 009 009 009 009 009	80.
1922-23.	Number of successful vaccinations.	13	61,625 20,0915 128,0029 128,0029 24,5262 24,5263 26,323 27,763 11,763 11,763 11,763 14,753 14,753 11,753 14,753 14,753 14,753 18,53	1,738,386
192	Ratio of deaths from small-pox.	12	07 07 07 08 09 09 01 01 01 01 01 01 01 02 03 03 03 04 04 04 05 06 06 07 08 09 09 09 09 09 09 09 09 09 09	.16
1921-22.	Number of successful vaccinations.	11	77. 11,293 11,370 96,368 96,360 129,635 129,635 159,235 15,925 159,330 159,30	1,516,502
192	Ratio of deaths from small-pox.	10	Not under registra-tion.	-14
1920-21.	Number of successful vaccinations.	6	83,234 45,093 108,560 48,560 48,560 48,560 81,634 40,482 71,919 71,91	2,006,692
192	Ratio of deaths from small-pox.	∞		• 48
1919-20.	Number of successful vaccinations.	7	110,575 33,109 51,345 116,348 50,363 42,839 111,302 111,302 111,502 111,502 111,502 111,412 42,083 32,004 111,411 187,426 42,083 162,083 162,083 162,083 162,083 166,960 8,050 8,050	2,636,589
191	Ratio of deaths from small-pox.	9		06.
1918-19.	Number of successful vaccinations.	5	51,101 17,947 17,947 26,650 27,650 27,650 37,204 48,619 48,619 33,495 133,495 133,495 132,400 62,794 14,533 8,015 8,015 15,726	1,556,099
161	Ratio of deaths from small-pox.	4	17. 17. 18. 19. 19. 19. 19. 19. 10. 10. 11. 11. 14. 14. 14. 14. 14. 14	.26
1917-18.	Number of successful vaccinations.	8	2,4,28 831,28,28 841,3884 829,0551 829,0551 848,8344 848,8544 848,8544 848,8544 85,558 868,442 868,443 868,4	1,481,921
191	Ratio of deaths from small-pox.	27		15
	District.	1	Burdwan Birbhum Bankura Midnapur Hooghly Howrah 24-Parganas Calcutta Nadia Murshidabad Jessore Khulna Rajshahi Darjeling Rangpur Bogra Pabna Manda Darjeeling Rangpur Bogra Fariduur Bogra Chittagong Noakhali Tippera Chittagong Hill Tracts Chittagong Hill Tracts Vaccination.	Total

STATEMENT No. VII. Showing the protection afforded to infants in each town in the Presidency of Bengal during the year 1926-27.

District.		Town. 2		ω Number of births during the year.	Number of deaths amongst children under one year during the year.	Number of successful vaccinations on children on ever during the year ending 31st March 1927.	Date of extension of Vaccination Act to town.			
Burdwan		Burdwan Kalna Katwa Dainhat Raniganj Asansol		237 194 56 61 313 327	$ \begin{array}{r} 9 \\ 49 \\ 5 \\ \hline 13 \\ 54 \\ 53 \\ \hline \hline 183 \end{array} $	160 194 56 129 513 358 1,410	lst July 1883. lst ,, ,, 14th September 1910.			
Birbhum .		Suri	• •	59	8	40	lst July 1881.			
Bankura	{	Bankura Vishnupur Sonamukhi	• •	491 480 375	41 75 65	262 60 117	1st July 1883. 1st ,, ,, 6th June 1892.			
Midnapur		Total Midnapur Ghatal Kharar Chandrakona Ramjibanpur Khripai Tamluk	•••	1,346 550 368 102 146 144 91 154	54 37 16 51 21 18 23	176 17 8 2 15 17 69	lst July 1883. lst ,, ,, l6th August 1889. lst July 1883. lst ,, ,, lst ,, ,, lst ,, ,,			
Hooghly		Total Hooghly-Chinsur Bansberia Arambagh Serampur Uttarpara Kotrung Baidyabati Bhadreswar Rishra-Konnagar	• • • • • • • • • • • • • • • • • • • •	1,555 807 123 151 659 174 138 405 357 336	143 25 38 77 30 20 65 94 80	304 235 19 44 266 14 5 248 148 61	lst September 1881. lst July 1883. llth February 1889. lst March 1883. lst April ,, lst July ,, lst ,, ,, (It formerly formed a part of the Seram- pur Municipality.) (It formerly formed a			
							part of the Baidya- bati and Bhadreswar Municipalities.)			
		Total	• •	3,466	650	1,054	- Parties parties of			
Howrah	1	Howrah	• •	4,157	1,472	1,760	lst April 1882.			
		Bally	• •	398	61	434	1st October 1884.			
		Total	• •	$\boxed{\begin{array}{c} 4,555 \\\end{array}}$	1,533	2,194				
	•	Total of the Burd Division.	lwan	12,169	2,775	5,441				
24-Parganas	.{	South Suburban Tollyganj	• •	772 401	61	768 443	lst October 1883. lst ,, ,, (It formerly formed a part of the South Suburban Municipality.)			

District.	Town.	Number of births during ω the year.	Number of deaths amongst children under one year during the year.	Number of successful vaccinations on child-ren under one year during the year ending 31st March 1927.	Date of extension of Vaccination Act to town.
	Budge-Budge Baranagar Kamarhati	273 581 401	13 146 59	166 251 140	18th February 1902. 1st October 1883. 1st ,, ,, (It formerly formed a part of the Baranagar Municipality.)
	Rajpur Baruipur Jaynagar North Dum Dum South Dum Dum Khardah Barrackpur including Barrackpur Cantonment.		43 8 21 34 44 15 26	39 46 21 20 88 13 25	lst October 1883. lst ,, ,, lst ,, ,, lst ,, ,, (They formerly formed parts of the South Barrackpur Munici-
	Panihati	279	45	51	J pality.)
24-Parganas— concld.	North Barrackpur Tittagarh	316 648	43 157	169 332	lst October 1883. lst ,, ,, (It formerly formed a part of the South Barrackpur Munici- pality.)
	Garulia	156	18	54	1st October 1883. (It formerly formed a part of the North Barrackpur Municipality.)
	Naihati Halisahar Kanchrapara Bhatpara	367 98 188 1,226	64 17 7 157	336 18 8 258	lst October 1883. lst ,, ,, (They formerly formed parts of the Naihati Municipality.)
	Barasat Gobardanga Basirhat Baduria Taki	74 31 522 134 144	6 4 102 11 36	11 9 323 46 49	lst October 1893. lst ,, ,, lst ,, ,, lst ,, ,, lst ,, ,,
	Total	7,600	1,262	3,684	
	20001	-,000		0,001	
Calcutta	Calcutta	16,788	6,879	16,496	1880.
Nadia $\left\{ \begin{array}{ccc} & & & & \\ & & & & \\ & & & & \\ & & & & $	Krishnagar Nadia Ranaghat Birnagar Santipur Chakdaha Kushtia Kumarkhali Meherpur	315 202 180 49 658 74 116 76 79	43 44 29 18 147 9 16 18 21	123 20 122 24 62 55 21 12 23	lst October 1883. lst ,, ,, lst ,, ,, lst ,, ,, lst ,, ,, 28th January 1887. lst October 1883. lst ,, ,, lst ,, ,,
	Total	1,749	345	462	

District.	Town.		⇔ Number of births during the year.	Number of deaths amongst children under one year during the year.	Number of successful vaccinations on children under one year during the year ending 31st March 1927.	Date of extension of Vaccination Act to town.
$\mathbf{Murshidabad} \ldots \left\{$	Berhampur Murshidabad Azimganj	••	395 169 235	73 29 37	129 25 162	1st October 1883. 1st ,, ,, 1st ,, ,, (It formerly formed a part of the Murshidabad Municipality.)
	Kandi Jangipur Dhulian	• •	229 351 216	32 29 47	337 167 57	1st October 1883. 1st ,, ,, 26th June 1910.
	Total	• •	1,595		877	
${\rm Jessore}\qquad \ldots \bigg\{$	Jessore Kotchandpur Maheshpur	• •	134 71 35	$\begin{array}{c} 3 \\ 1 \\ 9 \end{array}$	31 6	1st October 1883. 1st February 1884. 1st October 1883.
	Total	• •	240	13	37	
Khulna {	Khulna Satkhira Debhatta	• •	155 108 51	10 27 8	13 82 64	1st July 1887. 7th July 1883. 1st October 1883.
	Total	• •	314	45	159	
	Total of the Pr dency Division		28,286	8,791	21,715	
Rajshahi	Rajshahi	• •	505	70	363	lst June 1881.
Najsham	Nator	• •	113	22	24	1st January 1881.
	Total	• •	618	92	387	
Dinajpur	Dinajpur	• •	165	19	130	1st January 1887.
Jalpaiguri	Jalpaiguri	• •	121	16	180	1st January 1887.
Darjeeling \ldots	Darjeeling	• •	512	57	261	1st September 1884.
Durjooming	Kurseong	• •	280	27	261	1st January 1887.
	Total	• •	792	84	522	
Rangpur \dots {	Rangpur Gaibandha	• •	229 47	$\begin{array}{c c} 32 \\ 6 \end{array}$	84 29	1st July 1881. 20th November 1924.
	Total	• •	276	38	113	
Bogra	Bogra	• •	104	13	36	1st January 1882.
Dogra	Sherpur	• •	53	8	4	1st October 1884.
	Total	٠	157	21	40	
	Pabna	• •	. 187	19	172	1st February 1882.
Pabna	Sirajganj	• •	345	83	211	1st January 1887.
	Total	• •	532	102	383	

			ing	ths ren ing	Number of successful vaccinations on children under one year during the year ending 31st March 1927.				
			duri	of deaths children year during	chi chi endi				
			ths	cear	suc on one ear 1927				
District.		Town.	Number of births during the year.	of ie y	of ions der he y	Date of extension of Vac- cination Act to town.			
			r of	ber igst r ou	ung ti				
			mbe he y	Number of amongst under one the year.	Number vaccin ren u during 31st M				
1		2	3 N T T T T T T T T T T T T T T T T T T		' '	6			
1				4	5	0			
	ſ	English Bazar	269	28	250	1st March 1883.			
Malda		Malda	56	$\frac{26}{72}$	14	1st April 1887.			
	Ĺ	Nawabganj	356	73	131	12th May 1904.			
		Total	681	127	395				
		Total of the Rajshahi	3,342	499	2,150				
		Division.							
	(Dacca	3,582	789	1,941	1st July 1887.			
Dacca	{								
	Ĺ	Narayanganj	927	220	96	lst ,, ,,			
		Total	4,509	1,009	2,037				
	۲	Mymensingh	460	82	25	1st October 1887.			
		Muktagacha	116	$\frac{31}{31}$	11	1st ,, ,,			
		Netrokona	224	34	33	20th January 1890.			
7.6		Jamalpur	548	50	266	1st October 1887.			
Mymensingh	•• \	Sherpur	508 404	44	$\begin{array}{c} 57 \\ 120 \end{array}$	$egin{array}{cccccccccccccccccccccccccccccccccccc$			
	}	Kishorganj Bajitpur	121	$\begin{array}{c c} & 47 \\ & 17 \end{array}$	120	1c+ "			
	L	Tangail	267	39	25	19th February 1890.			
		$\operatorname{Total} \dots$	2,648	344	537				
TO 1		Faridpur	219	29	113	1st October 1887.			
Faridpur	\cdots	Madaripur Rajbari	$\begin{array}{c} 518 \\ 275 \end{array}$	89 45	$\begin{array}{c}91\\39\end{array}$	1st ,, ,, ,, 20th November 1924.			
	(Kajpari	210	40		Zour November 1924.			
		Total	1,012	163	243				
	۲	Barisal	268	67	52	1st October 1887.			
		Jhalakati	39	25	3	1st ,, ,,			
		Nalchiti	28	6	• •	1st ,, ,,			
Bakarganj		Pirojpur	234	50	222	1st January 1890.			
		Patuakhali Bhola	$\begin{array}{c c} 112 \\ 12 \end{array}$	22	2	25th January 1891. 8th November 1922.			
	را	Bnola	12	1	• •	om November 1922.			
		Total	693	171	279				
		Total of the Dacca	8,862	4,557	3,096				
		Division Division	0,002	1,001	0,000				
	c	Chittagong	854	156	$\phantom{00000000000000000000000000000000000$	1st April 1887.			
Chittagong		Circuagong	004	150	12	ist April 1007.			
	l	Cox's Bazar	82	11	19	14th November 1892.			
		Total	936	167	93				
						3 / A *1 300F			
Tinnoro		Comilla Brahmanbaria	$\begin{array}{c c} 217 \\ 700 \end{array}$	$\begin{array}{c} 23 \\ 110 \end{array}$	$\begin{array}{c} 85 \\ 196 \end{array}$	1st April 1887. 1st ,, ,,			
Tippera	•••	Brahmanbaria Chandpur	176	$\frac{110}{24}$	116	1st ,, ,, 22nd July 1898.			
		_				J			
		Total	1,093	147	397				
Noakhali	• •	Noakhali	75	8	150	1st April 1887.			
		Total of the Chitta-	2,104	322	640				
		gong Division.	, , ,		320				
		Total for the Presi-	54,763	16,944	33,042				
		dency.	52,100		00,012				

PROVINCIAL STATEMENT A.

Showing the degree of protection afforded to infants during the year 1926-27.

District.			Rural population among which vaccinations were per- formed.	Number of births during the year.	Mortality among infants under one year.	Surviving population under one year available for vaccination.	Number successfully vaccinated.	Proportion of persons successfully vaccinated per 1,000 of population as shown in column 5.	Proportion of persons successfully vaccinated per 1,000 or population during 1925-26.	
1			2	3	4	5	6	7	8	
Malda	• •	••	955,830	29,602	4,356	25,246	19,784	787.5	$774 \cdot 2$	
Rajshahi			1,457,037	44,225	9,603	34,622	22,653	$654 \cdot 2$	762	
Darjeeling		• •	254,045	8,650	1,370	7,280	4,384	602 · 1	688 · 3	
Nadia	• •	• •	1,390,704	38,156	9,113	29,043	11,539	397.3	384 · 1	
Murshidabad	• •	• •	1,182,983	46,626	9,425	37,201	13,604	$392 \cdot 5$	$385 \cdot 6$	
Dinajpur	• •	• •	1,687,328	55,098	12,071	43,027	15,128	353 • 9	390.6	
Khulna			1,421,116	37,263	7,201	30,062	10,583	352.03	366.9	
Chittagong H	ill Tracts		173,243	4,746	931	3,815	1,115	318.4	$272 \cdot 2$	
Jalpaiguri		• •	921,749	28,979	5,425	23,554	9,353	312.1	590.9	
Pabna	• •	• •	1,344,633	32,321	6,568	25,753	7,976	309.7	$207 \cdot 1$	
Burdwan	• •	• •	1,343,185	51,196	10,125	41,071	11,288	274.8	278.8	
Howrah			778,893	23,065	5,252	17,813	4,356	$244 \cdot 5$	319 · 1	
Tippera			2,678,627	59,923	8,841	51,082	11,869	232 · 3	267 · 4	
Bankura		• •	964,487	38,371	7,104	31,267	7,179	229 • 6	255 · 3	
Rangpur	• •	• •	2,488,778	68,560	14,434	54,126	12,293	227 · 1	201.8	
Noakhali	• •		1,465,071	48,919	6,999	31,920	7,219	$226 \cdot 1$	274 · 1	
Hooghly			900,802	21,769	4,147	17,622	3,940	223.5	234.5	
Birbhum		• •	838,655	34,493	7,554	26,939	5,610	208.02	161 · 1	
Chittagong			1,570,760	43,634	6,650	36,984	6,411	173.5	139 · 1	
24-Parganas		• •	1,998,318	49,298	8,240	41,058	7,120	173 · 4	168	
Jessore	• •	• •	1,700,924	48,332	6,694	41,638	7,198	172.8	245	
Dacca			2,975,915	75,328	12,655	62,673	10,534	168.07	125 · 1	
Midnapur	• • ,	• •	2,595,071	76,726	14,081	62,645	9,326	148.8	164.8	
Faridpur			2,202,783	55,715	11,353	44,362	5,556	125 · 4	96.7	
Mymensingh		• •	4,710,669	111,628	20,781	90,847	9,172	100.9	100 · 2	
Bogra			1,032,300	23,343	5,075	18,268	1,444	77.3	82.3	
Bakarganj	• •	• •	2,563,849	70,218	15,389	54,829	1,835	33.4	27.8	
Total of the Rural Circles			43,597,765	1,186,184	231,437	954,747	238,469	249 • 7	253.3	
Calcutta			1,077,264	16,788	6,879	9,909	16,496*	$1,664 \cdot 7$	$960 \cdot 7$	
Mufassal	Municipal	ities	2,020,517	37,975	10,065	27,910	16,546	589.2	482.4	
Gran	nd total	• •	46,695,536	1,240,947	248,381	992,566	271,511	273 •4	269 • 5	

^{*}During the epidemic period of small-pox children and infants from outside of Calcutta were brought in and vaccinated. Hence this increase in the number of successful vaccinations compared with the surviving population.

PROVINCIAL STATEMENT B.

Showing different kinds of lymph used and the percentage of success during the year 1926-27.

1		Percentage of suc- cessful cases,	32	60.6 62.3 47.9 54.9 68.9	56.1	50.6 27.2 59.6 63.4 58.9	44.7	76.6 336.5 33.6 68.5 39.1 50.1	57.5	49.8 69.3 52.8 48.7	2.09	38.9 37.01 65.6	45.3	74.6 38.7 39.7 56.2	52.2
	ph.	Опкпочи.	31	688 2,035 1,450 14,228 1,881 4,585	24,867	5,460 35,624 7,190 4,748 2,822 1,823	57,667	2,337 2,548 1,439 2,807 3,072 9,713 4,970 8,336	35,222	5,852 10,194 6,192 901	23,139	8,775 14,201 3,622	26,675	9,534	177,455
	glyccrinated lymph	Unsuccessful,	30	27,654 13,609 18,619 36,598 6,258 10,113	112,851	25,382 100,843 7,264 26,223 12,668 7,709	180,089	10,378 5,607 17,881 5,623 11,320 17,379 36,200 9,467	113,885	12,357 26,181 22,682 5,162	66,382	18,512 26,831 11,344	58,877	2,034 10,539 1,093	545,757
		Successful.	29	43,707 25,933 18,315 62,075 18,131 8,135	176,296	31,702 51,071 21,393 53,784 20,762 13,684	192,396	41,851 25,432 11,112 4,273 31,455 17,463 41,441 29,151	202,178	18,113 82,352 32,398 5,778	138,648	17,411 23,956 28,622	70,896	6,076 111,151 934	798,577
1	With	.letoT	28	72,049 41,577 38,384 112,901 26,270 22,833	314,014	62,544 187,538 35,847 84,755 26,252 23,216	430,152	54,566 33,587 30,432 12,703 45,877 44,555 82,611 46,954	351,285	36,322 118,727 61,272 11,841	228,162	44,698 64,988 43,588	156,448	*28,742 9,534 2,349 16	1,528,841
		Percentage of successful cases.	27	 10.9 84.8	24.8	24.1	24.1		:		:	:::	: ::	:::::	24.7
Rowseningtion	lymph.	.пуопяпО	26	2,586	2,593	: : : : :	:	:::::::	:			:::	: ::	:::::	2,593
Reway	lanoline ly	Unsuccessful,	25	2,795 204	2,999	381	381	::::::	:		:	:::	: :	:::::	3,380
	With lan	Successful.	24	 1,181	1,845	121	121	::::::	:	::::	:		: :	:::::	1,966
		Total.	23	6,045	7,437	502	505	,	:	::::	:		: :	:::::	7,939
- Care - C720-		Percentage of successful cases.	22		·:	:::::	:	::::::	:	::::	:	:::	: :	:::::	:
	from calf.	Unknown.	21		:	:::::	:		:		:	:::	: :	:::::	:
	ect	Unsuccessful.	20	:::::	:		:	:::::::	:		:	: :	: :	:::::	
	Dir	Successful.	19	:::::	:	:::::	:	:::::::	:	::::	:	:::	: :	:::::	:
		Total.	18		:	:::::	:	:::::::	:	::::	:	:::	: :	:::::	
		Percentage of successful cases.	17	907 906 906 908 908 908	9.46	98.2 90.1 93.3 96.6 99.08	2.96	99.1 94.4 92.6 95.3 83.7 95.9	94.3	93.6 91.8 97.6 95.2	93.4		95.8	93.6 90.4 90.8 100	95.1
	ph.	Unknown.	16	109 184 1,549 1,549 114	2,244	1,156 1,708 1,708 238 241 140	3,908	1,334 1,334 789 2,013 3,703 1,120 689	9,848	5,025 7,683 573 2,184	15,465	1,081 2,071 1,286	4,450	411	36,331
	nated lymph	Unsuccessful.	15	1,382 947 91 1,127 231 173	3,951	861 1,708 1,063 1,472 197 183	5,484	1,194 1,194 1,194 1,566 801 2,157 911	10,869	3,723 13,581 721 2,737	20,763	1,513 2,352 1,585	5,499	819 65	47,534
	With glycerinated	Successful.	14	52,070 36,262 35,100 82,329 26,318 26,618	258,697	73,483 26,288 39,049 48,657 47,391 45,975	280,843	42, 712 72,377 20,423 10,455 72,685 23,221 75,675 32,088	349,636	129,632 238,465 54,361 98,487	520,945	53,058 59,927 110,324	6,749	1,334 7,786 4,727	1,654,041
4100		Total.	13	53,561 53,561 37,393 85,243 85,705 26,785	264,892	74,759 29,162 41,820 50,367 47,829 46,298	290,235	43,098 77,722 21,625 11,279 76,264 78,952 33,688	370,353	138,388 259,729 55,655 103,408	557,172	55,652 64,350 113,195	6,810	1,424 8,605 5,203	1,737,906
	Vaccination	Percentage of suc- cessful cases.	12	777:8	89.5		99.3	:::::::	<u>;</u>	::::	:	:::	: : :	:::::	92.8
		Unknown.	11	225 7 1 9	226 8		:	:::::::	:	::::	:	:::	: :	:::::	226 9
	lymph.	Unsuccessful.	10	4 4	44	:::6::	6	:::::::	:	::::	:	:::	: :	:::::	53
	lanoline ly	Successful.	6	 805 1,520	2,325	1,291	1,291	::::::	:	::::	:	:::		:::::	3,616
6	With la	Total.	oo	1,034	2,595	1,300	1,300	::::::	:	::::	:	:::	: :	:::::	3,895
		Percentage of suc- cessful cases.	7	::::::	:	:::::	:		:	::::	:	:::	: :	:::::	:
	Jf.	Unknown.	9	:::::	:	::::::	:		:	::::	:	:::	: :	:::::	
	rom calf.	Unsuccessful.	5	:::::	:	:::::	:		:		:	:::	: :	:::::	
	Direct fro	Successful.	4	::::::	:	:::::	:	:::::::	:	::::	:	:::	: :	:::::	
	Dire	Total.	က	::::::	:	:::::	:	:::::::	:	::::	:	:::	: :	:::::	
-				:::::	:	::::::	:	:::::::	:	::::	:	::: : : : : : : : : : : : : : : : : : :	: :		:
	District.			Burdwan Birbhum Bankura Midnapur Hooghly Howrah	Total	24-Parganas Calcutta Nadia Murshidabad Jessore Khulna	Total	Rajshahi Dinajpur Jahaiguri Darjceling Rangpur Bogra Pabna	Total	Dacca Mymcnsingh Faridpur Bakarganj	Total	Chittagong Noakhali Tippera Chittagong Hill	Tacts	Railways Factories Steamers Tea Gardens Dispensaries	Total for the Presidency
-		No.	-	101004100		20 10 11 12 12		24797-860 84797-860		22222		00000 00400			

*Results of 7,052 operations performed in the Ludlow Jute Mills of the Howrall District have not been furnished.



